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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,059	04/01/2004	Henry Copeland	5101-89373	9637
24628 7590 08/22/2008 Husch Blackwell Sanders, LLP Welsh & Katz 120 S RIVERSIDE PLAZA 22ND FLOOR CHICAGO, IL 60606				
EXAMINER MCGOWAN, JAMIE LOUISE				
ART UNIT 3671		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/816,059

**Applicant(s)**

COPELAND, HENRY

**Examiner**

JAMIE L. MCGOWAN

**Art Unit**

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 September 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-17 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)  
3) ☐ Information Disclosure Statement(s) (PTO/SE/US)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Kolk et al. (3,872,805).

Regarding claim 1, Kolk et al. discloses a planting machine for planting seedlings into soil in a regular and uniform sequence comprising:

- A frame (44,45,46)
- At least one plant delivering unit comprising a means for conveying seedlings from a point of manual insertion to a point of placement in sequence in soil, each unit further comprising a means to open a furrow in soil (Column 1 lines 65-66), and to close the opened furrow after delivery of seedling (column 4 lines 10-12)
- Said delivering unit having a drum (143) rotatable about an axis, the structure of which defines compartments (see Figure 2) around its outermost surface for conveying seedlings from a point of manual insertion (seedlings are capable of being manually inserted in the event that the hopper is not used or is broken) to point of release
- Said drum compartments having an opening radially open outward from the axis of the drum (143) for reception of seedlings into the opening and for release of seedlings out of the opening to the next delivery stage further including
  - An upright conduit means (84) being open at its upper and lower ends and of sufficient size and located in proximity of and exposed to rotatable drum for acceptance of seedlings released from drum

(143), such conduit means guiding seedling from point of release to point of delivery to furrow opening means

Regarding claim 2, the rotatable drum (143) has a central shaft (see figure 2) being mounted at the end of said drum for rotation about its lengthwise axis, compartments in said drum being defined as the space between adjacent plates mounted for rotation on outer surface of said drum.

Regarding claim 5, the upright conduit means (84) is of rectangular cross section, a portion of one side of said rectangle being open and unrestrictive to the flow of particles.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 6-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kolk et al. (3,872,805) in view of Williams (6,327,986).

Regarding claims 3, 6 and 10 Kolk et al. discloses the invention as described above, but fails to disclose that the release of the seedlings into the ground can be facilitated by a blast of air. Like Kolk et al., Williams also discloses a planting machine. Unlike Kolk et al., Williams further discloses the use of an air jet (28, Figure 4) to facilitate planting by keeping the delivery of seedlings more uniform and predictable. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the air jet of Williams in the planter

Art Unit: 3671

of Kolk et al. to facilitate more even planting due to more accurate discharge of the seedling from the rotatable drum into the conduit means.

Regarding claim 7, the combination of Kolk et al. and Williams discloses that the plant delivering unit is mounted on the frame (44,45,46).

Regarding claim 8, the combination of Kolk et al. and Williams discloses that the frame is suitable for being pulled behind a tractor (column 3 line 34).

Regarding claim 9, the combination of Kolk et al. and Williams discloses that the device further comprises a traction wheel (31), said traction wheel being mounted on said frame, said traction wheel being operable interconnected with said plant delivering unit to drive said plant delivering unit (Figures 15 and 17).

Regarding claim 11, the combination of Kolk et al. and Williams discloses that the jet is a jet of air from a nozzle.

Regarding claim 12, the combination of Kolk et al. and Williams discloses that the rotatable drum (143) conveys the seedlings to the point of release.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kolk et al. (3,872,805) in view of Williams (6,327,986) as applied to claim 3 above, and further in view of Bouldin (5,860,372).

While the combination of Kolk et al. and Williams discloses the device described above, it fails to disclose a manually adjustable seedling release point. Like the combination of Kolk et al. and Williams, Bouldin also discloses a planting device. Unlike the combination, Bouldin further discloses that it is advantageous to be able to reposition the air jet to accommodate various sizes of seedlings as depicted in Figures 6A and 6B. It would have been obvious to one of ordinary

Art Unit: 3671

skill in the art to modify the planting machine of the combination of Kolk et al. and Williams to allow for adjusting the point of seedling release because it allow for adaptability to varying sizes of seedlings released making the device more versatile.

6. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kolk et al. (3,872,805) in view of Williams (6,327,986) and further in view of Poll (5,159,887).

Regarding claim 13, Kolk et al. discloses a seedling planter comprising:

- A frame (44,45,46) having a front end, a rear end, a top and a bottom
- A three point hitch (49, 50, 51) attached to said front end of said frame
- A planter console on said top of said frame
- A traction wheel (31) mounted on said rear end of said frame whereby forward motion of the frame imparts rotational motion to said traction wheel
- A first drum shaft rotatably mounted on said planter console
- A first planter drum (143) axially mounted on said first drum shaft, such that said first planter drum is fixed with respect to said first drum shaft and rotatable with respect to said planter console
- A drive line operably connecting said traction wheel to said first drum shaft, whereby rotation of said traction wheel is transmitted by said drive line to said first drum shaft, causing the rotation of said first drum shaft and of said first planter drum
- Flights (141) mounted on said first planter drum extending radially from said first planter drum and defining fixed radially outward openings between said flights for receiving seedlings (Figure 2)
- A fixed release point at a position during said rotation of said first planter drum at which seedlings are to be released from said flights through the fixed radially outward openings

- A funnel shaped plant guide mounted on said frame for receiving seedlings released from said first planter drum at said release point and directing seedlings into said furrow, whereby seedlings are conveyed from said planter drum to said furrow by operation of gravity and not by mechanical conveyance

While Kolk et al. discloses the invention as described above, it fails to disclose that the release of the seedlings can be facilitated by a blast of air. Like Kolk et al. Williams also discloses a planting machine. Unlike Kolk et al., Williams further discloses the use of an air jet (2, Figure 4) to facilitate planting by keeping the delivery of seedlings more uniform and predictable. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the air jet of Williams in the planter of Kolk et al. to facilitate more even planting due to more accurate discharge of the seedling from the flights to the conduit means.

While the combination of Kolk et al. and Williams discloses the invention as described above, it fails to disclose specifics about the air jet. The examiner takes Official Notice that it is known in the art to use an air compressor to power an air nozzle and that a hose would have to connect the air compressor to the nozzle for proper conveyance of the air to the desired location.

While the combination of Kolk et al. and Williams discloses the invention as described above, it fails to disclose a plow blade for opening the furrow and closing fins mounted on the frame behind the plant guide for closing the furrow. Like the combination of Kolk et al. and Williams, Poll also discloses a seedling planter. Unlike the combination, Poll discloses a plow blade (38) mounted on the bottom of the frame for opening a furrow for receipt of the seedlings and furrow closing fins (54,56) mounted on the frame behind the plant guide for closing the furrow. It would have been obvious to one of ordinary skill in the art at the time

Art Unit: 3671

the invention was made to include the plow blade and furrow closing fins of Poll in the combination of Kolk et al. and Williamses to facilitate the opening and closing of the furrow as plow blades and closing fins are well known in the art of opening and closing furrows respectively.

Regarding claim 14, the combination of Kolk et al., Williamses, and Poll discloses that the air compressor is driven by the tractor power take-off.

Regarding claim 15, the combination of Kolk et al., Williamses, and Poll discloses that the apparatus further includes an operator bench (71) mounted on the top of the frame, whereby an operator seated on the bench is within arms reach of the console such that an operator seated on the bench can drop seedlings into the opening between the flights radially extending from the planter drum, wherein the first planter drum rotates such that the direction of movement of flights along the upper portion of the planter drum is away from the operator bench and towards the release point for release of seedling to be dropped in the plant guide.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kolk et al. (3,872,805) in view of Williamses (6,327,986) and Poll (5,159,887) as applied to claim 13 above and further in view of Paul (4,807,543).

While the combination of Kolk et al., Williamses and Poll discloses the invention as described above, it fails to specifically disclose that there could be a second planter drum mounted on a second drum shaft. Like the combination, Paul also discloses a seedling planter. Unlike the combination, Paul discloses that there can be more than one planter (18) on the frame. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a second planter on the frame of the combination as taught by Paul to increase the efficiency of the planting operation by enabling the user to plant two rows in one pass.



8. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kolk et al. (3,872,805) in view of Williames (6,327,986) and Poll (5,159,887) as applied to claim 13 above, and further in view of Bouldin (5,860,372).

While the combination of Kolk et al., Williames, and Poll discloses the device as described above, it fails to disclose a manually adjustable seedling release point. Like the combination of Kolk et al., Williames, and Poll, Bouldin also discloses a planting device. Unlike the combination, Bouldin further discloses that it is advantageous to be able to reposition the air jet to accommodate various sizes of seedling as depicted in Figures 6A and 6B. It would have been obvious to one of ordinary skill in the art to modify the planting machine of the combination of Kolk et al., Williames and Poll to allow for adjusting the point of seedling release because it allow for adaptability to varying sizes of seedling released making the device more versatile.

### ***Response to Arguments***

9. Applicant's arguments filed 09/08/2006 have been fully considered but they are not persuasive.

Applicant's argument that Kolk teaches away from the claimed invention is not persuasive. Applicant cites column 1 lines 41-43 and states that Kolk teaches away from present invention because Kolk discloses that the practice of covering the earth with long and relatively wide strips of plastic material and forming the surface of the ground into long parallel ridges having a sine wave configuration obsoletes the general practice of planting in conjunction with opening and closing a furrow. The practice of planting in conjunction with opening and closing a furrow is only obsolete when the machine is used with the practice of using

plastic sheeting and sine wave ridges. While Kolk discloses this procedure as desirable, it is not the only way that the apparatus can be utilized. If this machine were used on a normal plot of land, it would read on the currently claimed invention. In fact, Kolk et al. specifically discloses penetrating the ground to plant the seedling (a furrow is defined as a rut, groove, or narrow depression - the opening formed by the discharge chute can therefore read as a furrow) (column 1 lines 64-65). Kolk et al. further specifically discloses that the soil is closed around the seedling (i.e. the compaction wheels close the furrow) (column 4 lines 10-12). The fact that the wheels are also compacting the soil does not detract from the fact that they are still closing the furrow made by the discharge chute.

10. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, applicant argues that the Williamses and Bouldin references are not appropriate because they do not teach the release of the seedlings from compartments and instead use prongs or plug trays. It is noted that both Williamses and Bouldin are secondary references and should be viewed as what they would teach someone of ordinary skill in the art that was making a combination. They can not be viewed individually when they are used as combinations.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMIE L. MCGOWAN whose telephone number is (571)272-5064. The examiner can normally be reached on Monday through Friday 8:00 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on (571)272-6998. The

Art Unit: 3671

fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas B Will/  
Supervisory Patent Examiner  
Art Unit 3671

Jamie L. McGowan  
August 18, 2008